REMARKS

The foregoing amendment is to impart greater clarity to the claims rather than to avoid prior art.

Applicants respectfully request reconsideration of this application as amended. Claims 1-33 are pending in the application. Claims 1-32 are rejected. Claims 1 and 33 are amended.

The Office Action rejects Claims 1-32 for nonstatutory obviousness type double patenting over U.S. Patent No. 7,085,795. Applicant respectfully disagrees that all claims in the present application are obvious in view of the instant patented claims. Never the less, a terminal disclaimer with regard to the above referenced patents is attached herewith as a separate paper.

Rejections under 35 U.S.C. 101

Claims 1-16 and 18-21 are rejected under 35 U.S.C. 101, as allegedly being directed to non-statutory subject matter. The Examiner states that the method, process or system set forth by Claims 1-16 and 18-21 does not produce a tangible result because it is not a real-world result. Applicant respectfully notes that the Examiner gives no controlling president or law to support his assertion.

On the other hand, the notion of requiring a transformation or reduction of 'subject matter' to a different state or thing was addressed by the Federal Circuit in Schrader. In Schrader, the phrase 'subject matter' was determined not to be limited to tangible articles or objects, but includes intangible subject matter, such as data or signals, representative of or constituting physical activity or objects. *In re Schrader*, 22 F.3d at 295, 30 USPQ2D 1455 at 1459 (Fed. Cir. 1994).

The Federal Circuit clarified the meaning of the term 'subject matter' in Schrader (*Id.* at 295 n.12) and corrected a misconception that would require changes to a physical object, stating that (emphasis added):

> Professor Robinson cites to *Cochrane* for the above definition but inexplicably speaks in terms of changes to a physical "object" while *Cochrane* speaks in terms of changes to "subject matter." The distinction is significant. In the *Telephone Cases*, 126 U.S. 1 (1887), the Court upheld the validity of a claim directed to a method for transmitting speech by impressing acoustic vibrations representative of speech onto electrical signals. If there was a requirement that a physical *object* be transformed or reduced, the claim would not have been patentable. The point was recognized by our predecessor court in *In re Prater*, 415 F.2d 1393, 162 USPQ 541, 549 (CCPA 1969): " [The *Cochrane* passage] has sometimes been misconstrued as a 'rule' or 'definition' requiring that all processes, to be patentable, must operate physically upon substances. Such a result misapprehends the nature of the passage... ." *Id.* at 1403, 162 USPQ at 549, *modifying on rehearing*, 415 F.2d at 1387-88, 159 USPQ 583, 592 (CCPA 1968); *see also In re Musgrave*, 431 F.2d 882, 892, 167 USPQ 280, 289 (CCPA 1970). Thus, it is apparent that changes to *intangible* subject matter representative of or constituting physical activity or objects are included in the definition. *See Tilghman v. Proctor*, 102 U.S. 707, 728 (1881); *Corning v. Burden*, 56 U.S. (15 How.) 252 (1854).

An analysis of the instant claims must be performed in order to make a determination of whether the subject matter is statutory. Such analysis should correlate each claim element with corresponding structures, materials or acts set forth in the specification.

The Federal Circuit has directed that, "The person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Phillips v. AWH Corp.*, 415 F.3d at 1313.

In the context of the entire patent, including the specification, the claims are directed to transform coding techniques, which are popular for compression and decompression of audio, images and video (e.g. see p. 2, pars. 4-5 of the specification). Therefore, in the context of the entire patent, the claims set forth a transformation or reduction of subject matter, i.e. audio, images and video data, which is representative of

or constitutes physical activity or objects. Thus Claims 1-16 and 18-21 are directed to statutory subject matter.

The Examiner also states that Claims 1-16 and 18-21 are directed to a program per se, and the machine-accessible medium set forth in the claims is insufficient. Applicant respectfully disagrees.

Claim 1, for example as currently amended, now sets forth:

> 1. (Currently Amended) A tangible machine-accessible medium including data that, when accessed by one or more machines, causes said one or more machines to:
>
> multiply-add a first line of packed byte data with a first line of packed transform coefficients to generated a first intermediate packed data including a first sum of products and a second sum of products; and
>
> horizontal-add the first sum of products and the second sum of products to generate a first result of a first plurality of packed results.

Applicant also respectfully submits that the claim itself need not recite a practical application or useful result where one skilled in the art would recognize that such a result is well known from an analysis of the instant claims in the context of the entire patent, including the specification. Such analysis should correlate each claim element with corresponding structures, materials or acts set forth in the specification.

The Federal Circuit also explained in *AT & T Corp. v. Excel Communications, Inc.* 172 F.3d 1352, 1356, 50 USPQ2D 1447, 1450 (Fed. Cir. 1999) that (emphasis added):

> This court recently pointed out that any step-by-step process, be it electronic, chemical, or mechanical, involves an "algorithm" in the broad sense of the term. *See State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1374-75, 47 USPQ2d 1596, 1602 (Fed. Cir. 1998), *cert. denied*, ____ U.S. ____, 119 S. Ct. 851 (1999). Because Section 101 includes processes as a category of patentable subject matter, the judicially-defined proscription against patenting of a "mathematical algorithm," to the extent such a proscription still exists, is narrowly limited to mathematical algorithms in the abstract. *See id.: see also Benson*, 409 U.S. at 65 (describing a mathematical algorithm as a "procedure for solving a given type of mathematical problem").

and also explained (172 F.3d 1352 at 1357) that (emphasis added):

> The *State Street* formulation, that a mathematical algorithm may be an integral part of patentable subject matter such as a machine or process if the claimed invention as a whole is applied in a "useful" manner, follows the approach taken by this court en banc in *In re Alappat*, 33 F.3d 1526, 31 USPQ2d 1545 (Fed. Cir. 1994). In *Alappat*, we set out our understanding of the Supreme Court's limitations on the patentability of mathematical subject matter and concluded that.
>
> [The Court] never intended to create an overly broad, fourth category of [mathematical] subject matter excluded from Section 101. Rather, at the core of the Court's analysis... lies an attempt by the Court to explain a rather straightforward concept, namely, that certain types of mathematical subject matter, *standing alone*, represent nothing more than *abstract ideas until reduced to some type of practical application*, and thus that subject matter is not, in and of itself, entitled to patent protection.
>
> *Id.* at 1543, 31 USPQ2d 1556 (emphasis added). Thus, the *Alappat* inquiry simply requires an examination of the contested claims to see if the claimed subject matter as a whole is a disembodied mathematical concept representing nothing more than a "law of nature" or an "abstract idea," or if the mathematical concept has been reduced to some practical application rendering it "useful." *Id.* at 1544, 31 USPQ2d 1557.

The person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. *Phillips v. AWH Corp.*, 415 F.3d at 1313.

Applicant respectfully submits that the claimed computation of a multiply-add of a first line of packed byte data with a first line of packed transform coefficients to generated a first intermediate packed data including first and second sums of products and a horizontal-addition of these sums of products, as set forth in claim 1, would not be treated merely as a program per se by a person of skill in the art in the context of the entire patent.

The instant language when correlated with the corresponding structures and processes set forth in the specification makes it apparent to one of skill in the art that the claimed invention has a practical application in the technical arts, i.e. as a useful integer transform coding technique for compression and decompression of audio, images and video. Thus Applicant respectfully submits that Claims 1-16 and 18-21 are directed to statutory subject matter.

CONCLUSION

Applicants respectfully submit the amended specification, the amended drawings, and the present claims for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Lawrence Mennemeier at (408) 765-2194.

Authorization is hereby given to charge our Deposit Account No. 50-0221 for any charges that may be due.

Respectfully submitted,

Date: October 12, 2007

/Lawrence M. Mennemeier/
Lawrence M. Mennemeier
Reg. No. 51,003

INTEL CORPORATION
c/o INTELLEVATE LLP
P.O. Box 52050
Minneapolis, MN 55402
(408) 765-2194